OBSERVATIONS

ON THE

WINDWARD PASSAGE,

OR THE

PASSAGE BETWEEN JAMAICA AND ST. DOMINGO, THROUGH THE ISLANDS TO THE NORTHWARD OF ST. DOMINGO, &c.

By

CHARLES ROBERTS, MASTER IN THE ROYAL NAVY.

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BRITISH MUSEUM

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OBSERVATIONS

ON

THE WINDWARD PASSAGE, &c.

From Altavela on the South Side of St. Domingo or Hiſpaniola, to Port Royal in Jamaica.

SHIPS bound to Jamaica, after paſſing the Windward Iſlands, have no occaſion to make the land of St. Domingo or Hiſpaniola, until they get as far to leeward as *Altavela*, or *Little Mount*, as our ſailors call it: it is a ſmall iſland, but pretty high, to the ſouth weſtward of Cape de la Beata, the ſouthernmoſt headland of St. Domingo, from which it is ſeparated by another iſland called alſo BEATA; this extends about 3 miles from north to ſouth, and 2 miles from eaſt to weſt, being rather low, though it hides the Cape when you are paſſing abreaſt of it. Between the Cape and the Iſland of Beata is a paſſage for ſmall veſſels; but they muſt keep conſiderably nearer the Cape than the Iſland, as there is a Reef, or rather a bridge, which runs down from the northern part of the Iſland about two thirds over: the deepeſt water in this channel is 15 feet, and it is ſo narrow that it requires a pilot. Between the Iſland of Beata and Altavela a very good channel is found, ſo deep that I could never get any ſoundings in it.

About N. W. from Altavela lie the *Frayles*, a parcel of rocks above water, and on which, as you paſs, you perceive the ſea breaking very diſtinctly. To anchor between the Iſland of Beata and the Main, you muſt haul pretty cloſe round the weſt ſide of the Iſland, paſſing between it and the Frayles, and work up in the Bay, where there is tolerable anchoring in 10 or 12 fathoms water.

The iſland of ALTAVELA is in general ſeen before any of the land about the Cape, particularly if you are to the ſouthward; when making it at a diſtance, it riſes out of the water ſomewhat like the dome of St. Paul's Church, (if the top ſpire was cut off) emerging out of the fog of London, or, to expreſs it more properly, when the fog is condenſing or falling below that cupola.—It lies in latitude 17° 38′ by the beſt authorities I have been able to collect, but I never had an opportunity of obſerving near it myſelf. The longitude per lunar obſervation, taken 5 hours and ½ before we got abreaſt of it, and kept up to the middle of the Iſland, was 71° 27′ 45″ weſt of Greenwich.

From Altavela to the eaſt end of the *Iſle à Vache* are 42½ leagues; that eaſt end lies in latitude 18° 2′ north, and longitude 73° 40′ weſt. Hence to *Pointe Abacou* the courſe is W. 8°, S. 14 miles, and from Point Abacou to *Pointe à Gravois*, weſt 9 miles. Pointe a Gravois is low, and difficult to be known from *Port Salut*, which is near a league to the N. N. W. of it; it lies in latitude 18° 1′ north, and 74° 2′ longitude weſt.

In theſe ſeas the currents are very irregular, and ſeldom ſet in the ſame direction for two days together. It is therefore neceſſary to make the land from time to time, in running along the ſouth ſide of Hiſpaniola. Altavela, the Iſle à Vache, Point Abacou, and Point Gravois are ſituated favorably for that purpoſe, and the land over the Iſle à Vache, called the *High Land of St. Louis*, or the *Saddle Mountains*, (being one of the higheſt in the whole Iſland) may be ſeen at a vaſt diſtance in clear weather; but it is frequently covered with a coat in the afternoon, owing to the exhalation of the vapours from the earth by the action of the ſun, and by that means it becomes what the ſailors call hid in the clouds. Ships very often paſs without ſeeing theſe mountains, and depending too much on making the land hereabout for a guide, have ſometimes got among the ſhoals at the back of the Iſle à Vache.

The Isle à Vache (*Cow Iſland*) is 3 leagues long, 1 broad, and although not high, yet may be ſeen at the diſtance of 5 or 6 leagues in clear weather: when firſt raiſed from the S. E. it appears like a parcel of ſmall iſlands.—In caſe you have paſſed Altavela without ſeeing the land, I would recommend making it hereabout, or at all events before you are paſt the Iſland of St. Domingo, for fear of running foul of Morant Kays.

Morant Kays lie from latitude 17° 29′ to 17° 24′ north, and in longitude 76° 3′ weſt: they bear from Point Gravois W. 15° 45′ S. diſtance 118 miles, and from the eaſt end of Jamaica about 31 miles S. S. E. ¼ E. *per compaſs*; variation 8° 46′ eaſt. They conſiſt of *Four ſmall Kays* ſurrounded with a Reef, except to the N. W. where there is very good anchoring in 5 or 6 fathoms water, white ſand and ſhells.

From Point Gravois to Navaza Iſland the courſe is W. 16° 45′ N. diſtance 67 miles. The Navaza lies in latitude 18° 20′ north, and longitude 75° 18′ 30″ weſt. It is a ſmall iſland, of moderate height, ſteep all round, and entirely barren; it bears due weſt from Cape Tiburon 13½ leagues.

From Point Gravois to the *Eaſt end of Jamaica* the bearing is W. 1° 30′ S. the diſtance 126½ miles. From Navaza the eaſt end of Jamaica lies W. 19° S. diſtant 69½ miles. But although theſe are the true bearings and diſtances, I would adviſe to guard well againſt the currents, which are frequent here, and often affect the reckoning in ſuch a manner that very little dependance is to be had on it.

The

The EAST END OF JAMAICA lies in latitude 17° 58′ north, and longitude 76° 15′ 44″, according to the chart of Monſieur de *Chaſtenet-Puyſegur*, where the difference of longitude from the Cape, or Cap-François, were determined by means of the time-pieces of Monſieur *Ferdinand Berthoud*.

But the longitude of the Eaſt End deduced from Port Royal is 75° 53′ 42″, and the latitude obſerved by myſelf was 18° 00′ north. The difference of latitude is inconſiderable; but 22 minutes in the longitude, in ſo ſmall a ſpace, is more than ought to be. However I am at preſent rather inclined to give credit to Monſieur de *Chaſtenet-Puyſegur*, as he was ſent out to Cap-François by order of the King of France, to ſettle the longitudes of the adjacent places, and gives a very fair detail of all his obſervations, made in the years 1784 and 1785.

As the difference of longitude between the Eaſt End of Jamaica and Port Royal is 47′ 18″, Port Royal will lie in longitude 77° 3′ 2″ weſt; and its latitude deduced from Holcomb's Wharf in Kingſton, where I made ſeveral obſervations, is 17° 54′ 17″ north.

From the Eaſt End of Jamaica to PORT ROYAL POINT, it is only 45 miles, although common opinion makes it more; but I have frequently run it with ſtrong ſea-breezes, and having been particularly attentive to the diſtance, have made it ſometimes a little leſs, and ſometimes a little more, but the mean always gave me the above reſult. In running it down you have nothing to fear, at the diſtance of a mile from the ſhore, until you are got as far as *Plumb Point*, or the *Paliſadoes*, off which at the diſtance of about a mile, lies the MIDDLE GROUND, that breaks with the ſea-breeze. I would therefore adviſe you to ſteer in for Plumb Point, and paſs it at the diſtance of about ¼ of a mile from the ſhore; it is bold and ſteep to. But it is probable that before this, you will have a pilot on board; they in general keep well out to windward, for the purpoſe of boarding veſſels in time, and are ſo uſeful a body of men, that every encouragement ought to be given them both here and elſewhere.

But ſhould you fail meeting a pilot, you may ſteer down along ſhore without danger, paſs between the battery and Gun Kay, and give the Point a birth of about a cable's length, which will carry you without *the Knowl* abreaſt of the Point: after you are got round you may either heave to, or anchor till you ſend your boat aſhore to the Fort, and give the gunner a dollar; you may then proceed to KINGSTON at pleaſure.

The beſt channel for large ſhips is between *Rackam's Kay* and *Gun Kay*, hauling pretty cloſe to the latter, in order to avoid the Middle Ground, which lies ½ a mile to the N. W. of Rackams Kay, with no more than 10 feet on it at low water.

N. W. from Rackams Kay and S. by W. from Port Royal Point lies a Knowl with only 16 feet water; on this knowl, which is a hard coral bank of very ſmall extent

extent, his Majeſty's ſhip *Princeſs Royal* got aground. To avoid it, you muſt round Rackams Kay at a cable's length diſtance to the ſouthward, and then ſteer N. W. by W. till you open the eaſternmoſt part of Muſquito Fort, a ſail's breadth of Port Royal; you may then haul up N. by E. and N. N. E. if the wind permits.

WINDWARD PASSAGE.

From Port Royal to Cape Dame Marie.

SHIPS ſailing from Port Royal bound to windward, generally take the land-breeze in the morning, and go out at the windward channel: if they are ſo fortunate as to weather the Middle Ground, when the ſea-breeze takes them, they will have gained 6 or 7 miles more to windward than if they had gone out at the ſouth channel.

When they get up as far as Morant Bay, I would recommend ſtanding pretty cloſe in with the ſhore towards night, as they may have a good chance for the land wind, which during the night often blows pretty freſh between Morant and the Eaſt End of the Iſland.

After they have reached Port Morant, it will be neceſſary, between that place and the Eaſt End, to uſe caution in ſtanding off during the night, on account of *Morant Kays*, as they lie, (as we have already obſerved) little more than 10 leagues S. S. E. ¼ E. *per compaſs*, from the Eaſt End.

In caſe you ſhould be obliged to ſet up rigging, ſhift a top-maſt, or repair any damage occaſioned by the freſhneſs of the breeze in beating up, it may be very conveniently done under theſe Kays: and in order that you ſhould be thoroughly acquainted with their true ſituation, I have inſerted in the chart annexed to the preſent obſervations, a ſketch of the MORANT KAYS made by *Mr. Iſaac Chriſtie* of Jamaica, who paid them ſeveral viſits, and ſurveyed them with a minute attention. They form a creſcent, the *Weſt Kay* bearing from the *North-eaſt Kay* S. W. by S. When you make them, being to the eaſtward, and wiſh to anchor, keep 2 miles to the northward of the North-eaſt Kay, and ſteer weſt untill the *South-weſt Kay* bears S. by E. ½ E. then haul in to anchor in 16½ fathoms, with it bearing S. by E. diſtant 1¼ mile; *Savanna Kay* (called alſo Bird Kay) will then bear E. ¼ S. and the center of the North-eaſt Kay N. E. ¼ E. There is a reef which ſtretches N. W. from the North-eaſt Kay, and the rocks ſhew themſelves at low water; this reef is ſteep to on the north ſide, and from it runs a flat to the weſtward about 2½ miles, having only 3 fathoms in ſome parts; it is therefore not ſafe to paſs it till the South-weſt Kay bears S. by E. or S. by E. ¼ E*.

From

* Theſe Kays, which are named by the French, *les Grenouilles*, (the frogs) being very low, and only 6 or 7 feet above the ſurface of the water, cannot be ſeen very far off, though the three northern ones have ſmall

From the East End of Jamaica I would adviſe getting hold of the Coaſt of Hiſpaniola as ſoon as poſſible, and if the obſervation of ſeveral navigators holds good, you have in your favor a current which generally ſets toward the N. E. in the track by the Navaza, between the East End of Jamaica and Point Irois in St. Domingo, although no ſuch current is perceived to the northward or ſouthward of that track.

In ſtanding to the N. E. you muſt not approach the Formigas (the piſmires) in the night; the eaſtern edge of this ſhoal is reckoned to bear N. E. by N. ½ N. from the East End of Jamaica, diſtance about 40 miles, and is the ſhoaleſt part of the whole, having not more than 18 feet water on it; it is alſo ſteep to, with generally a great ſwell.

The diſtance from the East End of Jamaica to Pointe des Irois is 34½ leagues. Pointe des Irois, or Point Irois, the weſternmoſt headland of Hiſpaniola, lies in latitude 18° 22′ 25″ north, and longitude 74° 36′ weſt; it is not high, but remarkable by a ſmall mount on the extreme point, which ſeems detached like an iſland, until you come near enough to perceive the land with which it is joined: This point forms the northern part of the bay of the ſame name.

You may range along the north coaſt of this bay, and have from 18 to 19 fathoms water cloſe to the ſhore. The anchoring place is to the N. W. of a black rock which you will obſerve a little to the ſouthward of the town or village of Irois.

You anchor in 9 or 10 fathoms water, ſhelly ground; you may alſo anchor to the ſouthward of the rocky iſlot to the W. N. W. of a ſmall hummock towards the middle of the bay.

This bay is open to the ſouth wind, and there is always a heavy ſwell on the ſhore which makes the landing difficult. It is bounded to the ſouth by *Cape Carcaſs*, which with the *Fools Cape*, forms a large roundiſh point that terminates to Cape Tiburon. Theſe three Capes ſeen at a diſtance have the appearance of one, and go under the name of *Cape Tiburon*. This is eaſily known by the form of the highland over it, which is a high mountain, whoſe top is in ſhape ſomething like the outſide of a back baſket, and which lowers gradually to the water ſide.

Cape Tiburon properly ſpeaking lies 4 miles E. 30° S. of Point Irois, and forms the point of a bay that extends to the eaſt of that Cape.

Between the Capes Carcaſs and Tiburon there are no ſoundings at 50 fathoms within 2 cables length of the ſhore; but abreaſt of Cape Tiburon, and at the ſame

ſmall buſhes on them. A gentleman of St. Thomas in the eaſt, whoſe name to my great ſorrow I am not acquainted with, has lately planted, for the benefit of navigators, ſome Cocoa-nut-trees on *Savanna* or *Bird Kay*, in order that theſe ſmall and dangerous iſlots ſhould be deſcried in future at a greater diſtance.

diſtance

diſtance, you will have 30 fathoms. As you approach the bay, you ſhoal your water quickly.

The Bay of Tiburon is well ſheltered from the ſoutherly winds by *Point Burgos*, off which is a Reef about a cable's length from the ſhore.

All round this Bay is clear ground, with regular ſoundings ſhoaling gradually, as you come near the ſhore; and your beſt anchoring place is nearly abreaſt of the town, with Point Burgos bearing S. by E. and S. S. E. in 7 or 8 fathoms, oozy ground.

The ſoutherly winds are the worſt in Tiburon Bay; but the ground holds well, and the anchors have to drag up hill. Small veſſels may anchor pretty near the ſhore in 3 fathoms water, where they will be well ſheltered from the ſoutherly winds by the Reef.

This bay is near 3 miles from point to point, and is the moſt commodious to anchor in of any of the bays here about; the landing is eaſy, and freſh water is readily got.

From Point Irois to Cape Dame Marie, known among us by the name of *Dona Maria*, (the firſt being French, and the other Spaniſh, and both meaning the ſame, which in Engliſh is *Lady Mary*) the coaſt trenches N. 8° E. diſtance 15 miles; but half-way lie ſome rocks named *les Baleines*, or the *Whales*, which it is neceſſary to take care of. In all this courſe you will have ſmooth water, and the wind off ſhore for the moſt part. *Cape Dame Marie*, which lies in latitude 18° 37′ 30″ and longitude 74° 32′ 36″, is about the height of Beachy Head, bold and ſteep to the water ſide, and of a reddiſh hue.

From Cape Dame Marie to Cape Nicholas; with a Short Deſcription of the Bight of Leogane.

After getting to the north of Cape Dame Marie, I think it adviſeable and advantageous to work up in the *Bight of Leogane*, until you come to the weſt end of the *Iſland of Gonave*, from which you will readily fetch the *Platform Land* or *Cape Nicholas*, and have ſmooth water acroſs the Bight. But it is neceſſary to keep a good look out, eſpecially in the night, to guard againſt the heavy ſqualls, which, though of ſhort duration, frequently come off in this part.

February the 8th, 1786, in latitude 18° 51′ north, per obſervation, the north-weſt part of Gonave Iſland bore, *per compaſs* N. N. E. about 8 miles; the ſouthernmoſt point in ſight E. ½ S. about 6 leagues; and Cape Nicholas, or rather the platform land N. by W. 16½ leagues; from which the north-weſt part of this iſland will lie in latitude 18° 57′ north, and the ſouthernmoſt then in ſight in 18° 46′.

In

In ſtanding in to the ſouthward of the Iſland Gonave, nearly abreaſt of the middle of the iſland, lies a very dangerous ſhoal called THE ROCHELOIS; according to the obſervations made by Monſieur de *Chaſtenet-Puyſegur*, with Monſieur *Berthoud's* time-pieces, it lies in latitude 18° 37′ 40″, and longitude 73° 16′ 54″ weſt, conſequently 8 miles to the ſouthward of the ſouth-ſide of the Iſland of Gonave; the rocks are above water, and may be eaſily avoided in the day time.

GONAVE* is about 31 miles long and 8 or 9 broad, trenching nearly E. S. E. and W. N. W. all the ſouth ſide is bold and ſteep to within a mile of the ſhore; the north-weſt end is ſteep within half a mile, as alſo the north ſide until you get nearly abreaſt of the middle of it: then it extends farther off, but not exceeding a mile, till you come to *Point Galet*, which is the north-eaſt point, from which the iſland turns ſuddenly off to the S. E. by S. and S. S. E. when the Reef becomes ſomewhat broader. Off the ſouth-eaſt point the ſhoals ſtretch at a conſiderable diſtance, not leſs than 1¼ league, but good anchoring is found within them; however a pilot is neceſſary.

There is a very good channel between the ſouth-eaſt point of the Iſland of Gonave and the *Point of Leogane*; the diſtance acroſs being about 4 leagues, or rather better. The coaſt about Leogane is bold and ſteep to; but it is requiſite you ſhould give the ſouth-eaſt point of Gonave a birth of at leaſt 4 miles, on account of the Reef that runs off the ſaid point, and which has been mentioned before.

Although it is ſcarcely probable that a homeward bound Jamaica ſhip would proceed ſo far up the Bight as this, yet under ſome circumſtances, ſhe might be induced to make a weather ſhore of the Iſland of Gonave, and paſs through the *Channel of St. Mark*, on the other tack, which is open, free from danger, and not leſs than 3½ leagues broad.

* In 1787, Monſieur *de Lieudé de Sepmanville*, ſurveyed the *Iſland of Gonave* and *the Rochelois*, by order of the *Comte de La Luzerne*, Governor General of the French Leeward Iſlands; his particular Chart of the Gonave, as well as his obſervations on the Rochelois, having been added, in 1788, to the uſeful and elegant work of Monſieur *de Chaſtenet-Puyſegur*, called LE PILOTE DE L'ISLE DE ST. DOMINGUE, &c. It reſults from the trigonometrical operations of that gentleman that the length of THE GONAVE is 32 miles, and its greateſt breadth 7 or 8 miles. The eaſt point of the iſland is in latitude 18° 43′ 30″, longitude 72° 53′ 33″. The middle of the weſt point is in latitude 18° 56′ 0″ and longitude 73° 24′ 35″; the variation obſerved was 6° 20′ eaſt.

The Shoal called ROCHELOIS extends in breadth, north and ſouth nearly, 2000 toiſes (of 6 feet each,) and in length from eaſt to weſt 3155 toiſes. About the middle of the ſhoal there are rocks (125 toiſes in extent) which ſhew themſelves entirely at low water; but three heads only are ſeen at high water. To N. W. of the ſaid rocks two dangerous ſpots are found, one diſtant 500 toiſes, the other 800 from the middle rocks, with only 2 fathoms water on each of them. The latitude of the middle rocks is 18° 37′ 10″; when you fall to the northward of the Rochelois, you muſt keep at one mile diſtance at leaſt from the Gonave; but when you are ſteering the ſouthward of the ſhoal, you may range along the Coaſt of St. Domingo, which is clear in this part.

Off Pointe des Vazes *(oozy Point)* about 3 or 4 miles, lie the Arcadins, which are three ſmall Iſlots or Kays, extending S. W. by S. and N. E. by N. about 1½ mile. You have 16 or 17 fathoms water between them and the ſhore, and 5 or 6 through theſe Kays.

St. Mark's Channel lies about N. W. and S. E. until you get abreaſt of St. Mark's Point, in latitude 19° 1′ north, bold, and ſteep to, and ſeen at a great diſtance. From this point to *the Platform* it is about N. W. diſtance 18 leagues: as the land is very high, and ſteep to the ſea ſhore, it is often beſt to give it a birth to avoid being becalmed, which I have frequently been.—February 8th, 1786, I obſerved in the latitude of 19° 41′ north, Cape Nicholas N. E. by E. ½ E. *per compaſs*, about 8 or 9 miles, the ſouthernmoſt part of the Platform land (upon which ſtands a battery and a flag-ſtaff,) bore E. by S. ½ S. 8 or 9 miles, a white rocky cliff on the ſhore, on with a large notch in the hill, E. by S. 4 or 5 miles.

About 4 leagues round the Platform point lies Cape St. Nicholas Mole, an excellent harbour, and deep water from ſhore to ſhore, till you get up as far as a battery on the ſouth ſhore, where there is a ſhoal water acroſs the *Bight of Valiere*; but it ſhews itſelf very plain. The north ſhore is bold and ſteep to. All the way the greateſt part of the entrance is near 1½ mile wide, but it narrows as you go up; however there is plenty of room to work in, and the Bight is about 2 miles in depth to the town, which ſtands on the ſouth ſide. The water is ſo deep that you cannot anchor until you come abreaſt of the town; then you will have 18 or 20 fathoms, ſandy ground. Above the town it becomes much narrower, and the water is alſo ſhoaler; then it opens a little again, and makes a very fine baſon, with 6 or 8 fathoms water alongſide of the rocks, where veſſels often careen at.—Obſerve that in going in you muſt be prepared for the puffs, or ſudden ſqualls, which come down from the land ſometimes with ſuch a violence as to endanger the maſts.

Cape St. Nicholas, *(Cape Nicholas)* lies in latitude 19° 51′ north, and longitude 73° 32′ 30″ weſt. Two miles to the ſouthward of it, lies the Falſe Cape, which is ſteep to, and eaſily known by the ſmall rock at it's extremity. It is generally calm here; the currents in ſhore ſet to the northward, but two leagues in the offing they run to the weſt and W. S. W.

From Cape Nicholas to Inague.

From Cape Nicholas to the ſouth-weſt point of Inague, the courſe is N. 7° W. diſtance 65 miles.

The Island of Inague, or Grand Inague, which we call alſo *Inagua*, and ſometimes *Heneaga*, is eaſily known, and though of a very moderate height may be ſeen at 6 or 7 leagues diſtance. The ſouth ſide is the higheſt, and has

has ſeveral ſmall hummocks which make it appear at firſt like ſo many detached iſlands, higher to the weſtward, and lowering toward the eaſt; the weſt part is flat and level, without any hillocks, and may be ſeen only 4 or 5 leagues off.

From the ſouth-weſt point of Inague, the coaſt trenches N. W. by W. per compaſs, 3 miles; and then N. N. W. 5 miles to the *Middle Point* of the weſt end, which is the weſternmoſt part of the iſland, lying in latitude 21° 1′ north, and longitude, deduced from Cape Nicholas 73° 45′ 7″ weſt. This point is bold and ſteep to; and round to the northward is a large bay, without any danger, where you have good anchoring, and can get freſh water; but, as in the reſt of theſe iſlands, it is far from being good.

From the Middle Point of Inague to its north-weſt point, is N. by E. ½ E. *per compaſs*, 6½ miles nearly; this *North-weſt Point lies in latitude* 20° 7′ *north*, or (as I have obſerved in 1793, within a ſtone's throw of the very pitch of the point, then bearing due eaſt) in 20° 9′ 17″ north: round to the N. E. is a dangerous Reef which ſtretches off a great way. Veſſels coming from the northward ought to be very careful of this Reef, and not to attempt to run in during the night on any account.

There is alſo another Reef off the ſouth ſide of Inague, 5 or 6 miles to the eaſtward of the ſouth-weſt end, and which runs about 2 miles from the ſhore. A third Reef lies off the ſouth-weſt end of the iſland, three quarters of a mile from the ſhore; on this laſt Reef I ſaw ſeveral wrecks in February 1786; and the ſouthernmoſt part of it is in latitude 20° 53′ north. In making the Iſland, from the ſouthward eſpecially, it is hummocky, as I have obſerved in the beginning, and appears like Iſlands; but as you approach nearer, the low land riſes in ſight.

From Inague to Watling's Iſland, through the PASSAGE *by* CROOKED ISLAND.

This paſſage ought to be named THE PASSAGE of COLUMBUS, in memory of that great man, who diſcovered it and ſailed through it in 1492, but unfortunately we muſt conform ourſelves to the vulgar and general appellation.

From the Middle Point of the weſt end of Inague to the Hogſties, the courſe is N. 13° W. diſtance 39 miles.

The HOGSTIES lie in latitude 31° 39′ north; they are two ſmall ſandy Kays, almoſt even with the water's edge, to the N. E. of which is a large reef about 5 miles in extent, with rocks on the outer edge of it that ſcarcely riſe above water, and on which the ſea breaks when it blows hard; but on the ſouth-weſt ſide there is tolerable anchoring in 6 or 7 fathoms water, between the two

ſandy Kays, the northernmoſt bearing about N. N. E. and the ſouthernmoſt pretty near eaſt.

From the Middle Point of Inague to the Isle au Château, or Castle Island (which is the ſouthernmoſt Kay on Acklin's Reef) the courſe is N. 23° 15′ W. diſtance 71 miles; and from the North-weſt Point of that Iſland to the ſame Kay, the courſe is N. 26° W. diſtance 66 miles.

From the Middle Point of Inague to the South Kay of the *Mira por Vos* (a Spaniſh name, which means "take care of yourſelves"), the bearing is N. 29° 30′ W. diſtance 71 miles; and from the North-weſt Point of that Iſland to the ſame Kay, the bearing is N. 33′ W. diſtance 67 miles.

The South Kay of Mira por Vos, which is the largeſt of the two, lies in latitude 22° 3′ north, and bears from Iſle au Château W. by S. 11 or 12 miles. The *North Kay* of the ſame ſhoal is in latitude 22° 7′ north, and bears from the South Kay N. by W. ½ N. rather more than 4 miles.

You may anchor under the South Kay half a mile from the ſhore; but the ground is foul, and you will have but little ſhelter from the ſwell, which rolls round the Kay, and makes it but an indifferent roadſtead. The bottom will be ſeen at a conſiderable diſtance to the S. E. and every danger ſhews itſelf in the day time. The ſhoal which encompaſſes the two Kays, with ſome rocks to the eaſtward of them ſometimes above water, is not above 15 or 16 miles in circumference, and you may ſail through the whole of it almoſt every where.

From the Iſle au Château to the *Middle Point* of Crooked Island, or rather to the ſouth point of the *Iſle Fortune**, the courſe is N. by W. about 23 or 24 miles. Between the ſouth part of *Acklin's Iſland*, and this point, the Reef forms a deep bight, and is the more dangerous as on its outer edge there are rocks even with the ſurface of the water in many places, and ocean water not more than 20 yards without them. Therefore veſſels paſſing this way in the night, ought never to ſteer to the northward of N. by W. but in the day, if the wind permits, they may haul up at pleaſure, as every danger in thoſe ſeas ſhews itſelf then in good time.

I was very particular in taking the latitude of this Middle Point of Crooked Iſland, (or ſouth point of Fortune Iſland as it is called in the charts) and found it to be 22° 30′ 22″ north, bold and ſteep to; it is likewiſe the weſternmoſt point of Crooked Iſland, and it lies in Longitude 74° 20′ 31″ weſt.

* It ſeems that the three iſlands to the northward of *Iſle au Château*, which are known in the French, as well as in the Engliſh charts, by the names of *Acklin's*, *Crooked* and *Fortune* Iſlands, were called originally by the general name of Crooked Island, probably from their real or apparent connection at low water. The original appellation has been retained here, in giving to the ſouth point of Fortune Iſland the name of *Middle point of Crooked Iſland*, as it is in fact the middle point of that paſſage.

From

From this point to the BIRD ROCK, called ſometimes *North Kay*, and by the French *Caye du Débouquement* (*Paſſage Kay*), the courſe is about N. ½ E. diſtance 19 miles, ſo that it will lie in latitude 22° 49′ 26″ north, and in longitude 74° 18′ 27″ weſt. I am equally particular with the true ſituation of this Rock, becauſe, if the wind ſhould be anything to the ſouthward of eaſt, this becomes the propereſt place to take a departure from, as *Watling's Iſland* would be probably out of ſight to leeward, in croſſing its latitude; or you might happen to croſs it in the night, which, with the wind at E. by S. can be done ſafely enough.

Between the Middle Point of Crooked Iſland and the Bird Rock there is a bay, about 3 or 4 leagues deep, where you will find good anchoring, and be well ſheltered from all winds, except from S. W. to N. W. between which points it is entirely open; theſe winds, however, are ſcarcely known here but in the winter months.

The north ſhore is the beſt anchoring; and well up in the bay, near four or five little iſlands, you find excellent water. Formerly the Providence wreckers had a houſe for their convenience in that iſland: when ſeveral of them happened to meet on ſhore, they aſſembled at the houſe, and paſſed five or ſix days in diverſions of all kinds. The laſt time I went through this paſſage there were ſeveral plantations ſettled hereabout; and I have been ſince informed, that they are increaſing in number.

The diſtance between the Bird Rock and the ſouth part of *Long Iſland* is not more than 23 miles; they both lie in the ſame latitude, although in moſt charts the ſouth point of Long Iſland is laid down nearly as far to the ſouthward as the Middle Point of Crooked Iſland.

From the Bird Rock to the *North-eaſt Point* of WATLING'S ISLAND the courſe is N. 4° 45′ W. diſtance 77 miles. This point, which lies in latitude 24° 5′ 27″ north, and longitude 74° 25′ 30″, is the corner to be weathered after leaving the Rock.

From the Bird Rock to the *South-weſt Point* of Watling's Iſland the courſe is N. 12° 25′ W. diſtance 69 miles; it lies in latitude 23° 56′ 47″ north, and longitude 74° 34′ 41″ weſt. In caſe you ſhould not be able to weather the North-eaſt Point, this is the point to bear round. Watling's Iſland has alſo ſome ſettlers; its weſt ſide is free from danger, but the eaſt ſide is bordered with a Reef, and the north end has breakers near 2 miles off.

About N. W. ½ N. from the Bird Rock, 54 or 55 miles, and S. by W. 26 miles from Watling's Iſland, lies RUM KAY, a ſmall iſland not more than three or four leagues in circumference.

From

From the Bird Rock to the weſt point of ATWOOD's KAY, called by the French *Samana Iſland*, is about 11 or 12 leagues N. E. by E. As I never had an opportunity of determining the ſituation of this iſland, I ſhall ſay very little about it, only that it is perfectly out of the track of this channel.

I have frequently come through this channel from the northward, when the current has deceived me in my reckoning, and carried me to leeward beyond my expectation; but it is rather far to leeward to be made choice of, as in caſe of not weathering the Eaſt End of *Cuba*, it is difficult to hold your own. I have been twice obliged, in the Mouth of the *Old Straits of Bahama*, to ſtretch over again to the Bahama Bank, and wait until the wind ſhifted a point or two: in that mouth, or entrance, there is generally a ſwell which prevents the ſhip from making much way through the water, conſequently the lee-way will be increaſed.

I would therefore give the following advice to thoſe who are going to the ſouthward through the Paſſage by Crooked Iſland. After paſſing the ſouthernmoſt Kay on the Bank, that is to ſay, Caſtle Iſland, they muſt keep up their wind till they have proceeded as high as S. E. and take care not to croſs the latitude of 21° 39′, in which lie the HOGSTIES; they are not even to come within 10 miles of them until day light, for fear of being deceived by the currents. If they make the Hogſties, it will be a freſh departure for them; but ſhould they miſs theſe Kays, if they ſtand on, they will be certain to make Inague long enough before night, as the diſtance from the Hogſties to the middle point of the weſt end of Inague is but 39 miles, and to the North-weſt Point only 33 miles. If they once get hold of that weſt end, their paſſage will be ſure, there being no danger of falling to leeward of Cape Mayzi.

But ſhould you be bound to Cape Nicholas, it will be neceſſary to keep as much up as S. E. by E. if the winds permit, for fear of a lee current, which frequently happens hereabout. The land of Hiſpaniola and that of the Tortuga being high, they will be ſeen in the day-time, if the weather is clear, by the time you get mid-channel; and it is better to have to bear up a few points, than not to be able to fetch it.

In 1793, July the 24th, ſtretching acroſs from the middle point of Inague, we endeavoured (in order to avoid privateers) to paſs cloſe round CAPE MAYZI, commonly *Cape Maize*, before daylight, as we poſſibly could with ſafety. We ſhaped our courſe accordingly, and at 4 A. M. made the high land to the N. W. of the Cape, bearing from W. N. W. to W. S. W. We imagined ourſelves to the ſouthward of the Cape, and ſteered S. W. by S. ½ S. with intention to run along the land till morning, that we might look about us before we ſtretched over for Jamaica. But we ſoon perceived the low point extending to the S. S. E. of us, which we could not weather. We then tacked, made a ſtretch off till we could double the Cape, which we did at half paſt nine A. M. at about a mile; when abreaſt of it, we ſet a point which had much the appearance of the Cape, and bore *per compaſs* N. W. ½ W. about 8 miles. I believe this point is what M. Le

M. Le Comte de *Chaſtenet-Puyſegur* has imagined to be the Cape. We then ſteered S. S. W. ½ W. *per compaſs*, till noon, having run about 12½ miles, and then obſerved in the latitude of 20° 2′ 32″ north; *Cape Bueno* then bore N. W. by N. about ſix miles; now allowing half a point eaſt variation, Cape Bueno will lie in latitude 20° 7′ 49″, the real Cape Mayzi in 20° 12′ 54″, and the North-eaſt Point in 20° 18′ 34″ north.

Paſſage to the Windward of the Hogsties, between Mogane and the French Kays.

After getting under the weſt end of Inague, when you are going to the northward, ſhould the wind be to the ſouthward of eaſt, there is a very good paſſage to windward of the Hogſties, and between the weſt end of Mogane and the French Kays.

Having fetched the weſt end of Mogane, your paſſage through is as ſure, as if you were up with the Bird Rock, in the Crooked Iſland Paſſage; as the eaſt point of Atwood s Iſland or Kay bears from the north-weſt part of Mogane N. W. by N ½ N. about 45 miles, ſo that with the wind, even as far to the northward as N. E. by E. you will readily weather it from Mogane.

Mogane, or *Mayaguana*, as it is called by the Spaniards, has tolerable anchoring under its weſt end, any where between the two points; but no freſh water to be had there. The North-weſt Point of Mogane lies in latitude 22° 30′ 54″. I found it ſo in 1793, by keeping my reckoning from noon to half paſt five P. M. when I was abreaſt of it within piſtol ſhot. Along to the eaſt of the North-weſt Point is a Reef which runs near a mile off, and here and there Rocks are ſeen upon the outer edge generally even with the ſurface of the water, but in ſome places pretty much above it. Near a mile to the eaſtward of the north-weſt point ſtands a remarkable Rock on the outer edge of the Reef; it is a full cable's length, and nearly as high as any part of the iſland; its top is covered with graſs or ſhrubs. The South-weſt Point lies in latitude 22° 24′ north; and longitude, per obſervation, 73° 20′ 37″ weſt.

Now in this paſſage you are particularly to guard againſt the Hogſties and the French Kays. I ſhall therefore give you their reſpective ſituation, as well as the poſition of the adjacent iſlands, ſo that you may eaſily avoid any of them, either in going or coming.

From the north-weſt point of Inague to the Hogsties, the courſe is N. 17° 30′ W. diſtance 33 miles.

From the Hogſties to the weſternmoſt part of the French Kays, the courſe is N. 4° 15′ E. diſtance 61 miles; and to the eaſternmoſt part N. 11° 10′ E. 62 miles.

The

The FRENCH KAYS, named by the French *Les Iſles Plates*, or *Flat Iſlands*, lie in latitude 22° 39′ north; they are two low ſmall iſlots, partly ſurrounded with a Reef. The weſternmoſt part of them bears from the North-weſt Point of Inague N. 3° 30′ W. diſtance 92½ miles; and their eaſternmoſt ſide N. 1° 30′ E. 92 miles from the ſame point.

From the eaſternmoſt part of the French Kays to the South-weſt Point of Mogane, the courſe is S. 42° E. diſtance about 25 miles; and to the north-weſt point of the ſame iſland S. 58° E. about 23 miles.

From the North-weſt Point of Inague to the South-weſt Point of Mogane, the courſe is N. 20° E. diſtance 80 miles.

From the South-weſt Point of Mogane to the North-weſt Point of the ſame iſland, the diſtance is about 8½ miles N. N. E.

This South-weſt Point lies in latitude 22° 22′ north, bold and ſteep to: the North-weſt Point in 22° 30′, and longitude 73° 31′ weſt, with a large Reef to the northward. In 1793, as I have mentioned before, I found the latitude of the North-weſt Point to be 22° 30′ 54″, the latitude of the South-weſt Point 22° 24′ north, and its longitude* 73° 20′ 37″. This very ſmall difference in the latitude as well as in the longitude of both places, obſerved at different intervals, makes me have ſome confidence in the poſition I aſſign to Mogane and the neighbouring iſlands.

Paſſage by the Back of Crooked Iſland.

Should it happen, in going through the paſſage by Mogane, that the wind ſhould haul to the northward of eaſt ſo as to prevent your being able to weather the French Kays, there is a very good paſſage between them and the Back of Crooked Iſland, through which I have been coming from the northward, but not by choice. I fell to leeward by miſtake, and made the French Kays and the Back of Crooked Iſland at the ſame time. When I deſcried the land, the Back of Crooked Iſland bore, *per compaſs*, S. W. ½ S. about 3 leagues, the French Kays S. E. near the ſame diſtance. It was about three P. M. I had obſerved in the latitude of 23° 5′ north at noon, and had run 24 miles S. S. W. before I made the land. I was bound from Philadelphia to Jamaica, and reckoned myſelf in longitude 71° 37′ weſt, when the land was ſeen, ſo that I found an error of 2½ degrees in my reckoning. The wind being then S. E. by E. I was willing to make the moſt of it, and, in caſe I ſhould have been to leeward, to make the land before night.

* In admitting this longitude to be the true one, the longitude of the North-weſt Point will be about 73° 30′, which differs only 2′ from that found by a former obſervation.

I mention

I mention theſe particulars in order to guard navigators againſt the currents in thoſe ſeas, and to ſhew at the ſame time that vigilance and a good look-out are the beſt guides among the iſlands I am ſpeaking of.

This Paſſage between the French Kays, and the back of Crooked Iſland is about 3 or 4 leagues wide. Should you come through it towards evening, it will be neceſſary, after bringing the northernmoſt part of the Weſt French Kay to bear eaſt, to ſteer N. W. ½ N. and in that direction to make a N. W. by N. courſe 37 miles, in order to avoid the Reef off the weſt end of Atwood's Kay: the weſternmoſt Point of this Kay lies in latitude 23° 10′ north, and bears from the weſt part of the French Kays N. N. W. 30 miles.

After having croſſed the above latitude you may haul up again N. by E. or N. N. E. if the winds will permit, in order to avoid Watling's Iſland, whoſe poſition has been mentioned before, in deſcribing the Crooked Iſland Channel.

The Cayques Paſſage.

The *Cayques*, or *Caycos*, conſiſt principally of four Iſlands of different ſize, which border on the northern ſide the bank of the ſame name; this bank ſituated to the northward of Hiſpaniola, extends about 22 leagues from eaſt to weſt, and about 19 from north to ſouth.

Between Inague and the Cayques is a very good paſſage, of near 10 leagues in breadth in the narroweſt part, which is between Little Inague, and the West or Little Cayque. This channel is moſtly frequented by the French ſhips from *Cap-Français* bound to the northward, and by veſſels from America bound to the leeward part of Hiſpaniola and Jamaica.

Ships from Cap-Français ſteer acroſs about N. by W. until they make Little Cayque in latitude 21° 36′ north, by which means they have ſmooth water under the lee of the *Cayques Bank*, which ſtretches as far to the ſouthward as the latitude of 21° 00′ north.

They generally endeavour to run this 12 leagues difference of latitude in the day-time, or at leaſt not to exceed the latitude of 21° 18′ north before day-light, for fear of approaching too near the Reef. In this latter latitude lies a ſmall *Sandy Kay*, on the very outer edge of the Reef; and to the northward of it they proceed with like caution as far as *French Kay*, which lies in the latitude of 21° 30′ north, hence the Reef runs about W. N. W. to the ſouth point of the Little Cayque.

The Little Cayque is bold and ſteep to on the weſt ſide, and lies on the weſternmoſt part of the Reef. From this to the eaſternmoſt part of the other Reef,

 which

which runs 4 or 5 miles from the ſhore, off the eaſt end of Mogane, they reckon 42 miles N. by W. ½ W. the extreme point of the *Mogane Reef* lies in latitude 21° 4′, north.

When you are paſt the Little Cayque you are to ſteer about north 2 or 3 leagues, to avoid a ſandy Kay on the outer edge; and then you may haul up N. N. E. and N. E. by N. at pleaſure, and as the wind will permit, that you ſhould not fall to leeward on Mogane Reef.

From the ſouth part of the Little Cayque to the eaſt point of *Little Inague*, the courſe is W. by S. ½ S. 27 miles, and from the eaſt point of Little Inague to the Mogane Reef N. by E. ½ E. about 52 miles. But ſhould you not be able to weather the point of that Reef, I would adviſe bearing up to run down the ſouth ſide of Mogane, and haul round its weſt end. The iſland is about 27 or 28 miles long in a W. by N. direction.

This channel taken from the northward is favorable, as I have ſaid, to veſſels bound from North America to Jamaica, or any part of the Iſland of St. Domingo to leeward of *Cap-Français*. They are to keep a very good look-out after croſſing the latitude of 23° 10′ north, for fear of being to leeward of their reckoning, and likewiſe to avoid running on Atwood's Kay, the French Kay, or the Iſland of Mogane; they muſt not run in the night till they have made the land.

The northern part of the Cayques lies, by the obſervation of M. le Comte de *Chaſtenet-Puyſegur*, in latitude 21° 57′ north, and longitude about 72° 4′ weſt. It conſiſts of two extenſive iſlands, called NORTH CAYQUE and GRAND CAYQUE. Off the northernmoſt ſide lies a Reef which you ſee break at a conſiderable diſtance; this part of the Reef is known among us by the name of the *Booby Rocks*; and the coaſt from hence trenches to the ſouthward on each ſide ſomething like the outſide of a creſcent.

The North Cayque is hummocky, and may be ſeen at a greater diſtance than the Middle, or the Little Cayque, both ſmall iſlands, and lying to the ſouth-weſtward of the Grand Cayque.

Should you make the land towards evening, I would recommend ſtanding off and on, or lying by all night, unleſs you are very certain of the part of the land you have in ſight. In the day-time there is nothing to fear, and the trenching of the land will be your guide until you get abreaſt of the Little Cayque. From this you may ſteer S. S. W. or, if in the night, S. by W. and you will have nothing to fear from the ſhoal off the ſouth-eaſt end of Inague. When you have croſſed the latitude of 21° 00′ north, no danger remains to be apprehended, and you may then ſteer at pleaſure towards the Port you are bound to.

The

The Turks Iſlands Paſſage.

The Turks Iſlands Paſſage is the ſhorteſt for ſhips bound from *Cap-Français*, to the northward; its channel which lies between the weſt ſide of the Cayques bank, and that of the Turks Iſlands, is about 6¾ leagues broad, and the whole length not quite 10 leagues.

" This Paſſage, ſays M. le Comte de *Chaſtenet-Puyſegur*, is very good, but you cannot always fetch it with a direct courſe: when you ſail from the Cape you muſt ſteer N. E. ¼ N. and the wind often will not allow you to make ſo much eaſting."

" To proceed in a ſecure manner, you muſt, in leaving *Cap-Français*, avail yourſelf of the land-breeze, keeping your wind cloſe, and then tack ſo as to make *the Grange*, (or *Montechriſti)* before night. You will for the moſt part bring it to the S. E. or S. S. E. about 3 leagues diſtance; if your ſhip is a good ſailer, and you have a freſh breeze, you may bring it to bear ſouth. Then ſhaping the courſe to the N. N. E. after a run of 25 leagues, you will make SAND KAY, the ſouthernmoſt of the Turks Iſlands."

" The ſouth point of *Sand Kay* lies in latitude 21° 11′, and longitude 71° 15′."

" You muſt endeavour to make this iſland; but if after you are got up to the Grange, you ſhould not be able to make good a N. N. E. courſe, there is no need to tack, till you have run 18 or 19 leagues. Should the courſe have not been better than N. by E. or north, you ought not to paſs the latitude of 21° for fear of coming too near the Cayques Bank."

" When you approach the latitude of 21° you are to heave the lead frequently, and the moment you find ground, about ſhip, and ſtand the other way, until day-light, when you may again tack, and paſs to windward of the White Grounds."

" The *White Grounds* in this part are very eaſily ſeen, and on them you have from 7 to 14 fathoms water; from the ſouthern edge you may run in one league, and even one league and a half, without finding leſs than 7 fathoms; but farther on there are rocks with only 3 fathoms water on them."

" In the day-time you may ſtand on to the northward, and if you ſhould not ſee the White Grounds, you will ſoon after make the iſlots to the ſouthward of the Cayques, or make Sand Kay, if you are farther to windward."

" You muſt not venture to go to leeward of the White Grounds, which extend to the ſouthward of a ſmall ſandy iſlot entirely drowned at high water. It

is very difficult to be ſeen, and your lead cannot give you warning, as you fall ſuddenly into 3 fathoms water."

" When in ſight of Sand Kay, 2, 3 or 4 leagues to the weſtward of it, you are to ſteer N. by E. and N. N. E. and after a run of 8 or 10 leagues, you have entirely cleared the channel. In going you muſt keep the Turks Iſland ſide on board, to avoid a Reef called *Baſſe St. Philippe* (and by the Engliſh the *Carvel*) which lies off the north-eaſt point of the Cayques."

" To the S. W. of Sand Kay there is a white ground which extends 1¼ league from the ſhore; you will find on it from 7 to 9 fathoms water"; in another place, p. 77 of his *Detail*, M. de *Chaſtenet Puyſegur* ſays 10 or 15 fathoms, which decreaſe inſenſibly to 5 within half a league from the ſhore.

On the 28th Auguſt, 1790, the King's ſhip *Endymion* ſtruck, and was loſt on a Shoal unknown before, and to the S. W. of the White Ground, mentioned by M. de *Chaſtenet Puyſegur*. This danger, ſays Lieutenant *Woodriff*, commander of the ſhip, is of ſmall extent, and conſiſts of 7 or 8 heads of rocks, one of which having only 8½ feet water on it; this is the rock which proved fatal to the *Endymion*. On ſome of the other rocks you will find 2, 3 and 4 fathoms, and between them 7, 8 or 9. The ſoundings between Sandy Kay and the Shoal, continues that officer, could not be aſcertained exactly, for want of time, and on account of the blowing weather. There are four rocks lying off to the eaſtward of Sand Kay, two of which appear above water, while the two others are even with it. The Reef from the north end of the Kay ſtretches to the northward 1½, or 2 miles, with ſome rocks out of the water. The channel between the ſhoal and the Kay appears to be ſpacious and clear.

THE ENDYMION SHOAL AND ROCK bear from the north end of Sandy Kay N. 24° E. about 8 miles, and from the ſouth end of the ſame Kay N. 44° E. about 7 miles.

Directions for the Return to Europe.

SHIPS bound to Great Britain, after having cleared the paſſage, will moſt likely endeavour to give the *Bermuda Iſland* a good birth, either to the ſouthward or northward. In the ſummer months I have in general gone to the northward of the Bermudas, croſſed the tail of the *Banks of Newfoundland*, and paſſed to the northward of the *Azores*, or *Weſtern Iſlands*. But in the winter months I have always made a point of paſſing Bermudas to the ſouthward: the wind I have had for the moſt part has been from S. W. to S. S. W. and ſometimes at ſouth, rather moderate than otherwiſe, until I came near the Weſtern Iſlands: ſometimes even I have brought the ſoutherly winds to the edge of ſoundings.

The violent gales from the N. W. and W. N. W. ſeldom reach to the ſouthward of the Line, between the ſouth part of the Azores and the Bermudas. The French,

well

well aware of this, ſent home, during the laſt war, all their ſhattered ſhips by this track, and did not loſe any one of them by ſtreſs of weather. That experienced ſeaman and navigator Captain, now Rear-Admiral *Colpoys*, had recourſe to the ſame precaution, in keeping well to the ſouthward with his convoy from the Leeward Iſlands, in the fall of the year 1782. He brought them all home, except a brig, which I have every reaſon to ſuppoſe was ſent to ſea for the purpoſe of being loſt, that the underwriters might pay for her*. While, on the contrary, the convoy from Jamaica, by keeping about two degrees of latitude to the northward of our track, experienced a very different fate†.

In approaching the Channel, I ſhould recommend getting in the parallel of 49 degrees, between the longitudes of 20 and 15 degrees weſt, and endeavour to ſtrike ſoundings in that latitude. In moderate weather I have always met with ſtrong ripplings near the edge of ſoundings; and with blowing weather I have alſo found the water much diſcoloured ſometimes before I could get ſoundings. Either of theſe appearances are ſtrong, and, I might ſay, infallible ſigns of your being on the edge of the Bank, which is very ſteep. In latitude 49° 8′ north, and longitude 11° 2′ weſt, I have tried in vain for ſoundings with 200 fathoms of line. In the ſame latitude, with longitude 10° 48′ weſt, having run due eaſt, from the latter attempt, I ſtruck ſoundings in 150 fathoms. In longitude 10° 39′ weſt, I ſounded again in 103 fathoms, fine white ſand, with brown ſpecks; and in longitude 10° 19′ weſt, ſame latitude, a third caſt gave me 80 fathoms, fine white ſand, with grey ſpecks.

In His Majeſty's ſhip *Adventure* coming into the Channel, in 1788, we ſounded in 90 fathoms, ſoft ooze rather of a yellowiſh hue, latitude 49° 10′ north, longitude 10° 28′ weſt; and in latitude 49° 16′, longitude 7° 21′ weſt, we had fine brown ſand.—In latitude 49° 32′ north, and longitude 6° 25′ weſt, we had 64 fathoms, coarſe ſand, ſtones and ſhells.—In latitude 49° 41′ north, and longitude 6° 12′ weſt, the depth was 60 fathoms, brown ſand with ſhells.

You ſhould always prefer entering the Channel well to the ſouthward, as you will have leſs to fear from the indraughts of *St. George's Channel:* or ſhould the winds hang to the ſouthward, which they often do, you can ſtand in boldly, without having occaſion to be afraid of the *Scilly Iſlands*. By making a conſtant uſe of your lead you will eaſily know when you are above *the Lizard:* after which there is nothing to fear in ſtanding to the northward; nor will the tides much

* I was then Maſter of His Majeſty's ſhip *Orpheus*. On the brig's making the ſignal of diſtreſs, I was ſent on board with our carpenter to examine her, and report whether it was poſſible to aſſiſt and ſave her. We found her ſo bad, that every roll ſhe took her waterways opened to that degree, that I could have ſhoved my fingers into the opening. Every pitch ſhe gave, the planks between wind and water, under the bows, wrought over each other near an inch, and the oakum was entirely out of the ſeams.

† A ſloop from Halifax to Bermudas paſſed through the Jamaica fleet in longitude 64° weſt; and two days afterward we fell in with her, near the ſame longitude, bearing to the ſouthward.

affect

affect you, but in a channel-direction; and the ſooner you make the land the better, as afterwards it will hardly be poſſible to commit an error. Theſe directions, as they are accurate, and may be followed with confidence, I invite the navigator to make the beſt uſe he can of them.

But I muſt obſerve at the ſame time, that he ſhould not truſt too implicitly to his courſe and diſtance, for both are liable to be affected by different cauſes. The courſe is affected by tides, and currents, and often by the inaccuracy of the compaſs; for it is very ſeldom you find any two compaſſes that will agree, conſequently either one or the other muſt be falſe, and perhaps both are wrong. The diſtance is ſubject to error from the defect of the line, or the glaſs; and often, near land, ſailors are very inattentive in heaving the log; they truſt to ſuppoſition what ought to be aſcertained with the greateſt care.

I now beg leave to aſſure the navigators who may have occaſion to peruſe the remarks here collected for their uſe, that they are the reſult of a long experience. My obſervations, nautic or aſtronomical, having been repeated at different times, and made with the greateſt attention, I have ſome reaſon to hope they will be found ſatisfactory, in point of accuracy, method, and conciſeneſs.

FINIS.